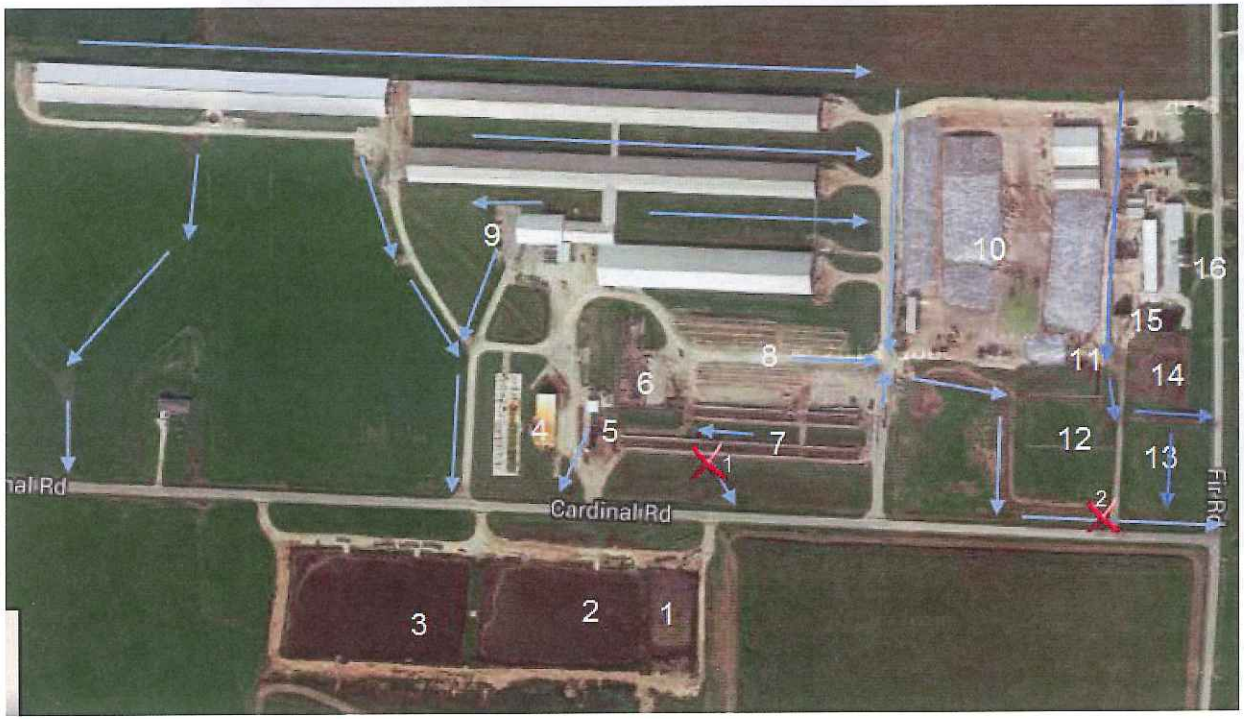
Dairy Dreams
Site Inspection April 16, 2014

CAFO WPDES Compliance Report (06/23/2014)

Inspection Date: 04/16/2014
Inspection Type: Site Inspection
Operation: Dairy Dreams
WPDES Permit Number: WI-0062057-03-0
Farm Location(s): E3576 Cardinal Rd., Casco- Sec 9 T25N R24E
On-Site Representation: Don Niles, Owner
DNR Staff: Danielle Block and Ryan Yelle, Agricultural Runoff Management Specialists
Other: Cheryl Burdett and Don Schwer, EPA- Andy Wallander and Paul Fredrick- Kewaune County LWCD



1- Manure Storage Pond Stage 1
2- Manure Storage Pond Stage 2
3-Manure Storage Pond Stage 3
4- Digester
5-Sand Separation System/Flume
6-Concrete Solid Manure Stacking Area & Sand Lanes
7-Super Hutch Area
8- Calf Hutch Area
9-Milking Parlor
10-Feed Storage
11-Feed Storage Runoff Collection & Pump
12-VTA and Spreader Bar for Feed Storage Area
13-VTA and Spreader Bar for Stormwater
14-Abdandoned Heifer Lot
15- Manure Storage Pond(north east)
16-Abandoned Heifer Barn

Stormwater(SW) Diversions/Flow Direction

Sample Point 1- Near Calf Hutch Area

Sample Point 2- SW Through The Facility

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Manure Storage

Top left: Photo of concrete lined manure storage pond located on the north east side of the facility. No MOL marker in this storage. Photo taken facing south east.
Top right: Photo of the three stage manure storage ponds. Stage one is concrete the other two are earthen lined. Permanent markers are present in all three storages. At the time of the inspection the storage had approximately 4 feet of freeboard and two feet until the storage was at its MOL. Photo taken facing west.
Bottom left: Photo of the sand separation system/flume for digester. Photo taken facing north.
Bottom right: Photo of the concrete manure stacking area. Photo taken facing north west.

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Top left: Photo of the sand seperation system sand lanes. Photo taken facing south.
Top right: Photo of the flume system to/from the heifer barn. This structure has an MOL marker and mechanism in place to prevent overflow of the system. Photo taken facing north.
At the time of the inspection these systems appeared to be in good operating condition with adequate freeboard.
Manure Transfer System- Manure is transfered from the barns to the sand settling system/flume and fed into the digester. From the digester liquid manure is transfered to the first stage of the manure storage.

Calf Hutch Area

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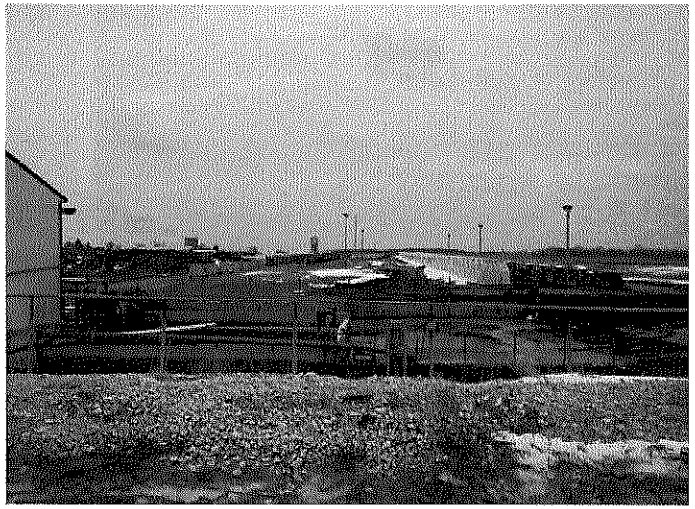

Top left(previous page): Photo of the east end of the calf hutch area. Calf hutches are cleaned at 2 months, clean beddding is added daily. Orange arrow indicates general calf hutch area runoff flow. At the time of the inspection a gravel berm was in place to direct runoff to the feed storage feed pad and runoff collection system. Photo taken facing north.
Top right(previous page): Photo of calf hutch area, driveway and stack of used hay. Red arrows indicates surface flow in area and the green lines are temporary gravel berms put in place to direct flow to feed storage runoff collection. Photo taken facing west.
Bottom left: Photo of the super hutch calf area. The super hutchs are kept on a concrete pad and the calfs have access to concrete lanes . The lanes are scraped to 4 days/wk and the hutchs are cleaned once every 2 months. Manure is scraped to the storage structure located to the west of the hutch area. Concrete hutch areas are pitched in a manner that all runoff is directed the storage structures located to the west of the hutch area. Photo taken facing north.
Bottom right: Photo of super hutch area(background) and the storage structures(foreground.) Photo take facing east.

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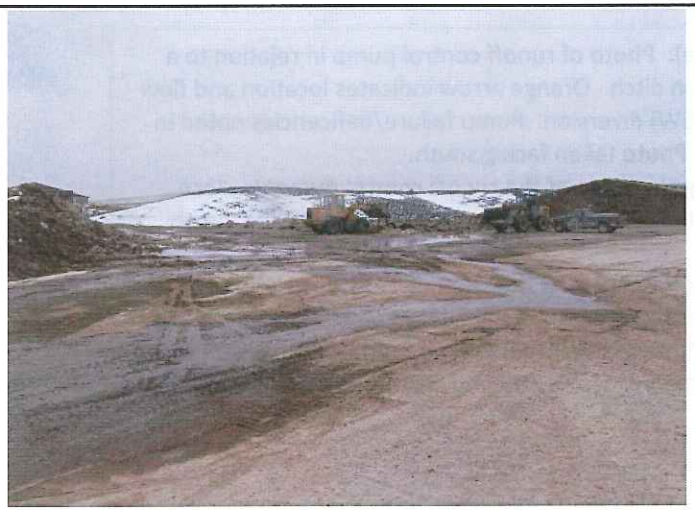
Feed Storage and Runoff Control System



Top left: Photo of the feed storage area. Feed (corn silage and haylage) is stored on a concrete pad. The facility collects (send to manure storage)the first flush of runoff and the second flush will be sent to through a vegetated treatment area(VTA.) At the time of the inspection the facility was collecting 100% of the runoff and sending it to manure storage. Photo taken facing north west.
Top right: Photo of the runoff collection system, concrete spreader bar and VTA. Red arrows indicates flow directions through the spreader bars and accross the VTA. Photo taken facing west.

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Bottom left(previous page): Photo of runoff control pump in relation to a clean stormwater diversion ditch. Orange arrow indicates location and flow direction of stormwater (SW) diversion. Pump failure/deficencies noted in April 10, 2014 photo log. Photo taken facing south.
Bottom right(previous page): Photo of the runoff control pump up close. Repairs made to address leaks in the concrete. Photo taken facing north east.
Left: Photo of feed storage area(runoff flow path in red) in realation to a SW diversion(flow path in orange.) Cement baracades in place for a portion of the SW diversion; at the time of the inspection no feed storage runoff to the SW diversion was observed. However wind blown feed was observed in the SW diversion.

Stormwater Diversions

Left: Photo of the a SW diversion located north of the freestall barns. Water in this diversion is roof water. Photo taken facing west.
Right: Same SW diversion water as in photo on left being channeled through culvert; this water will travels through facility as shown in the next photos and discharge offsite. Water appeared clear. Photo taken facing south. Red arrows indicated flow direction.

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Top left: Continution of the SW diversion, photo taken near calf hutch/feed storage area. Wind below feed observed in ditch area. Photo taken facing south.
Top right: Photo of same SW diverison flow path(orange arrow), yellow circle indicates approximate location of culvert previous in photo. Photo taken facing north west.
Bottom left: SW diversion flow path (orange arrow) to road culvert. Photo taken facing west.
Bottom right: Photo of samples bottles takes at Sample Point 2. See aerial map for sampling location. Photo taken facing south.

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Left and Middle:SW diversion located on the east side of the facility between the feed storage area and abandoned heifer barn. The SW in the diversion orginates from the a cropped field north of the facility; the cropped field is not operated by Dairy Dreams. Both ditches had wind blown feed within them, water with in the ditch was stagnet and dark in color. Red arrows indicate flow direction. Photo on left taken facing north and photo in middle taken facing south.
Right: Photo of ditch culvert blocked off; water within this ditch is being collected and put in to manure storage. Culvert has been blocked off since at least 11/15/2013(see photo log for 11/15/2013 inspection.) Photo taken facing south east.

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Left: SW from the ditch shown in the three previous pictures would flow through a ditch past the runoff control pump, through a access road culvert and into the spreader bar shown. Orange arrow indicates flow direction through ditch, spreader bar and accoss the VTA. The spreader bar and VTA shown in this picture were installe d for the purpose of treating SW that runs through the facility, these structures are not intended to treat process waste water from the feed storage area. Ponded water located north of this spreader bar is likely from a combination of sources: SW, runoff from abandoned earthen lot area and runoff from feed storage area collection system(see photo log from 4/10/2014 site visit.) Photo taken facing west.
Right:Photo of the VTA for the SW. Orange arrows indicated flow direction through VTA. The arrow on the far right of the photo shows a channelize flow path that discharges to the road ditch near culvert. Photo taken facing north.

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Left: Photo of SW drainage from under the concrete super hutch area. SW that would flow through this area would orginate from the grassed area between the two super hutch areas. At ther time of the inpsection the culvert between the super hutch areas was blocked off. The observed water flowing underneath the super hutch area was said to be due to a broken water line(per Don Niles.) Don stated they are in the process of addressing the broken water line issue. Orange arrow indicated flow directon. Photo taken facing northwest.
Right: Photo of the culvert coming out the south side of the super hutch area and sample bottles at Sample Point 1. See aerial map for exact location of the sample site. Photo taken facing north.

Left: Photo of a SW diversion located on the west side of the a facility. Orange arrow indicates flow direction.

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Other:

Left: Photo of the south portion of the abandoned heifer lot. Piles of material in photo are dirt. Orange line indicates boundry of lot. Photo taken facing east.
Right: Photo of used hay(from maternity barn) stacking area and small sump with manure/process wastewater within it located south of manure storage ponds. At the time of the inspection Block requested that Niles movedthis material to an approved storage structure. No discharge from this storage area was observed. Materials were moved to storage and sumps was filled in by April 17th. Photo taken facing south.

Records Review

Block requested to view the following onsite records:
-2014 NMP
-Inspection records
-Off- site waste acceptance if applicable
Nile was able to provide for review all of the documents requested. Dairy Dreams doesn't currently except off-site waste for use in digester or into the manure storage.

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Sample results

Sample: S01 SW CALF HUTCHES **Lab ID: 4094830001** Collected: 04/16/14 12:21 Received: 04/16/14 14:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**4500**	CFU/100 mL	100	100	100	04/16/14 16:30	04/16/14 16:30		
MBIO Total Coliform	Analytical Method: SM 9223 Preparation Method: SM 9223								
Total Coliforms	**Positive for Total Coliforms and E.coli**				1	04/18/14 13:30	04/16/14 16:35		u5

DNR Parameter Code	DNR Parameter Description	Result Type	Result value	Units	LOD	LOQ	Lower Reporting Limit	Upper Reporting Limit	Comments/Analysis	Analysis ID
310	BOD 5 DAY	1 Valid Result	6.93	MG/L	2.00	2.00			Comments	8775707
625	NITROGEN KJELDAHL TOTAL	1 Valid Result	6.20	MG/L	0.700	2.00			Comments	8775703
608	NITROGEN NH3-N DISS	1 Valid Result	2.53	MG/L	0.0750	0.240			Comments	8775704
631	NITROGEN NO3+NO2 DISS (AS N)	1 Valid Result	9.14	MG/L	0.0950	0.305			Comments	8775705
665	PHOSPHORUS TOTAL	1 Valid Result	0.735	MG/L	0.0500	0.160			Comments	8775706

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Sample: S02 SW THROUGH FACILITY **Lab ID: 4094830002** Collected: 04/16/14 12:45 Received: 04/16/14 14:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**1550**	CFU/100 mL	90.9	90.9	90.9	04/16/14 16:30	04/16/14 16:30		
MBIO Total Coliform	Analytical Method: SM 9223 Preparation Method: SM 9223								
Total Coliforms	**Positive for Total Coliforms and E.coli**				1	04/18/14 13:30	04/16/14 16:35		u5

DNR Parameter Code	DNR Parameter Description	Result Type	Result value	Units	LOD	LOQ	Lower Reporting Limit	Upper Reporting Limit	Comments/Analysis	Analysis ID
310	BOD 5 DAY	2 Below LOD	ND	MG/L	24.0	24.0			Comments	8775709
625	NITROGEN KJELDAHL TOTAL	1 Valid Result	12.3	MG/L	0.700	2.00			Comments	8775711
608	NITROGEN NH3-N DISS	1 Valid Result	7.97	MG/L	0.150	0.480			Comments	8775712
631	NITROGEN NO3+NO2 DISS (AS N)	2 Below LOD	ND	MG/L	0.0190	0.0610			Comments	8775710
665	PHOSPHORUS TOTAL	1 Valid Result	2.56	MG/L	0.500	1.60			Comments	8775708